

Amendments to the Claims:

Claims 1-28 **(Canceled)**

29. **(New)** A terminal apparatus for sending and receiving data to and from a router that is connected to an external network to which a server apparatus is connected, said terminal apparatus being connected to the router via a home network and the router holding a corresponding relationship between a global address assigned to the router and a local address of said terminal apparatus for a predetermined period of time, said terminal apparatus comprising:

a communication unit operable to send and receive data to and from the server apparatus via the router; and

an adjustment unit operable to detect the predetermined period of time during which the corresponding relationship is held in the router, and to judge that a period shorter than the predetermined period is a sending interval at which the data is sent;

wherein said communication unit is operable to send the data repeatedly to the router according to the sending interval.

30. **(New)** The terminal apparatus according to Claim 29, wherein:

a mobile terminal device sends a control request to said terminal apparatus; and
said communication unit is operable to receive the control request via the router.

31. **(New)** The terminal apparatus according to Claim 30, further comprising:

a control unit operable to control said terminal apparatus according to the control request.

32. **(New)** The terminal apparatus according to Claim 30, wherein:

a plurality of apparatuses are connected to said terminal apparatus via the home network;
the apparatuses each includes an apparatus control unit operable to control the apparatus itself;

said communication unit is operable to send the control request to each of the apparatuses; and

the apparatus control unit of each of the apparatuses is operable to control the respective terminal apparatus according to the received control request.

33. **(New)** The terminal apparatus according to Claim 29, further comprising:
a generation unit operable to generate data to be sent to the server apparatus;
wherein said generation unit is operable to generate the data that includes at least the following information in a header part: the local address of said terminal apparatus as a sender's address; a local port number of said terminal apparatus as a sender's port number; an address of the server apparatus as a destination address; and a port number of the server apparatus as a destination port number, and that includes at least the following information in a data part: a unique terminal ID of said terminal apparatus.
34. **(New)** The terminal apparatus according to Claim 33, wherein:
a mobile terminal device sends a control request to said terminal apparatus; and
said communication unit is operable to receive the control request via the router.
35. **(New)** The terminal apparatus according to Claim 34, further comprising:
a control unit operable to control said terminal apparatus according to the control request.
36. **(New)** The terminal apparatus according to Claim 34, wherein:
a plurality of apparatuses are connected to said terminal apparatus via the home network;
the apparatuses each includes an apparatus control unit operable to control the apparatus itself;
said communication unit is operable to send the control request to each of the apparatuses; and

the apparatus control unit of each of the apparatuses is operable to control the respective terminal apparatus according to the received control request.

37. **(New)** The terminal apparatus according to Claim 29, further comprising:
a generation unit operable to generate data to be sent to the server apparatus;
wherein said generation unit is operable to generate the data that includes at least the following information in a header part: the local address of said terminal apparatus as a sender's address; a local port number of said terminal apparatus as a sender's port number; an address of the server apparatus as a destination address; and a port number of the server apparatus as a destination port number, and that includes at least the following information in a data part: a response interval at which response data is sent as a response from the server apparatus.

38. **(New)** The terminal apparatus according to Claim 37,
wherein said adjustment unit is operable to judge that the sending interval should be shortened when said communication unit has not received the response data from the router within the sending interval.

39. **(New)** The terminal apparatus according to Claim 37, wherein:
said generation unit is operable to generate a plurality of data with different response intervals;
said communication unit is operable to send the plurality of data generated by said generation unit; and
said adjustment unit is operable to detect the predetermined period of time during which the corresponding relationship is held in the router from the response interval at which the response data is sent.

40. **(New)** The terminal apparatus according to Claim 39, wherein said adjustment unit is operable to detect a longest response interval as the predetermined period of time in the router

out of a plurality of response data sent by the server apparatus in response to the plurality of data sent by said terminal apparatus.

41. (New) The terminal apparatus according to Claim 37,

wherein the server apparatus includes:

a second communication unit operable to send and receive the data;

a response interval adjustment unit operable to obtain the response interval at which the response data is sent to said terminal apparatus, the response interval being included in the data, and to determine a response period during which the response data should be sent; and

a second generation unit operable to generate the response data to be sent to said terminal apparatus;

wherein said second communication unit is operable to send, to the router, the response data generated by said second generation unit according to the response period.

42. (New) A communication method for use with a terminal apparatus for sending and receiving data to and from a router that is connected to an external network to which a server apparatus is connected, the terminal apparatus being connected to the router via a network and the router holding a corresponding relationship between a global address assigned to the router and a local address of the terminal apparatus for a predetermined period of time, said communication method comprising:

sending and receiving data to and from the server apparatus via the router; and

detecting the predetermined period of time during which the corresponding relationship is held in the router, and judging that a period shorter than the predetermined period is a sending interval at which the data is sent;

wherein in said sending and receiving of the data, the data is sent repeatedly to the router according to the sending interval.

43. (New) The communication method according to Claim 42, further comprising:

generating data to be sent to the server apparatus;

wherein in said generating, the generated data includes at least the following information in a header part: the local address of the terminal apparatus as a sender's address; a local port number of the terminal apparatus as a sender's port number; an address of the server apparatus as a destination address; and a port number of the server apparatus as a destination port number, and includes at least the following information in a data part: a unique terminal ID of the terminal apparatus.

44. **(New)** The communication method according to Claim 42, further comprising:

generating data to be sent to the server apparatus;

wherein in said generating, the generated data includes at least the following information in a header part: the local address of the terminal apparatus as a sender's address; a local port number of the terminal apparatus as a sender's port number; an address of the server apparatus as a destination address; and a port number of the server apparatus as a destination port number, and includes at least the following information in a data part: a response interval at which response data is sent as a response from the server apparatus.

45. **(New)** A computer executable program for use with a terminal apparatus for sending and receiving data to and from a router that is connected to an external network to which a server apparatus is connected, the terminal apparatus being connected to the router via a network, and the router holding a corresponding relationship between a global address assigned to the router and a local address of the terminal apparatus for a predetermined period of time, said computer executable program comprising:

computer executable program code operable to cause a sending and receiving of data to and from the server apparatus via the router; and

computer executable program code operable to cause a detection of the predetermined period of time during which the corresponding relationship is held in the router, and judging that a period shorter than the predetermined period is a sending interval at which the data is sent;

wherein in the sending and receiving of the data, the data is sent repeatedly to the router according to the sending interval.

46. (New) The program according to Claim 45, further comprising:

computer executable program code operable to cause a generation of data to be sent to the server apparatus;

wherein in the generation of data, the generated data includes at least the following information in a header part: the local address of the terminal apparatus as a sender's address; a local port number of the terminal apparatus as a sender's port number; an address of the server apparatus as a destination address; and a port number of the server apparatus as a destination port number, and includes at least the following information in a data part: a unique terminal ID of the terminal apparatus.

47. (New) The program according to Claim 45, further comprising:

computer executable program code operable to cause a generation of data to be sent to the server apparatus;

wherein in the generation of data, the generated data includes at least the following information in a header part: the local address of the terminal apparatus as a sender's address; a local port number of the terminal apparatus as a sender's port number; an address of the server apparatus as a destination address; and a port number of the server apparatus as a destination port number, and includes at least the following information in a data part: a response interval at which response data is sent as a response from the server apparatus.

48. (New) A communication system comprising:

a server apparatus connected to an external network;

a terminal apparatus connected to a network; and

a router which connects the external network and the network;

wherein said router holds a corresponding relationship between a global address assigned to said router and a local address of said terminal apparatus for a predetermined period of time; and

said terminal apparatus comprises:

a communication unit operable to send and receive data to and from said server apparatus via said router; and

an adjustment unit operable to detect the predetermined period of time during which the corresponding relationship is held in said router, and to judge that a period shorter than the predetermined period is a sending interval at which the data is sent;

wherein said communication unit is operable to send the data repeatedly to said router according to the sending interval.

49. **(New)** The communication system according to Claim 48, wherein:

said terminal apparatus further includes a generation unit operable to generate data to be sent to said server apparatus;

said generation unit is operable to generate the data to include at least the following information in a header part: the local address of said terminal apparatus as a sender's address; a local port number of said terminal apparatus as a sender's port number; an address of said server apparatus as a destination address; and a port number of said server apparatus as a destination port number, and to include at least the following information in a data part: a unique terminal ID of said terminal apparatus; and

said server apparatus includes:

a second communication unit operable to receive the data that includes the terminal ID of said terminal apparatus;

a terminal information storage unit operable to store the following information as a set of terminal information: the terminal ID of said terminal apparatus; a global address of said router which is a sender's address; and a global port number of said router which is a sender's port number; and

a packet generation unit operable to obtain, from said terminal information storage unit, the global address and the global port number which correspond to the terminal ID when a control request to control said terminal apparatus with the terminal ID occurs.

50. **(New)** The communication system according to Claim 48, wherein:

said terminal apparatus further includes a generation unit operable to generate data to be sent to said server apparatus;

said generation unit is operable to generate the data to include at least the following information in a header part: the local address of said terminal apparatus as a sender's address; a local port number of said terminal apparatus as a sender's port number; an address of said server apparatus as a destination address; and a port number of said server apparatus as a destination port number, and to include at least the following information in a data part: a response interval at which response data is sent as a response from said server apparatus.

51. **(New)** The terminal apparatus according to Claim 29, wherein said terminal apparatus is a home terminal apparatus.

52. **(New)** The terminal apparatus according to Claim 29, wherein said terminal apparatus is an internet terminal.

53. **(New)** The terminal apparatus according to Claim 32, wherein said plurality of apparatuses are home appliances.